

Appl. No. 09/777,603  
Amdt. dated November 17, 2003  
In Reply to Office Action dated August 28, 2003  
Attorney Docket No. 3576-010027

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings of claims in the application:

#### **Listing of Claims**

Claims 1-16 (Cancelled)

Claim 17 (Currently Amended): A method of removing impurities from an aqueous system comprising the steps of:

- a) providing an activated carbon composition comprising consisting essentially of a carboxylic acid material adsorbed onto the surface of an activated carbon and optionally water; and
- b) passing an aqueous stream through the activated carbon composition, wherein the pH of the aqueous stream deviates less than 1 pH unit after passing through the activated carbon composition.

Claim 18 (Previously Presented): The method of removing impurities from an aqueous system of claim 17 wherein the carboxylic acid containing compound is present in the activated carbon composition in an amount of from 0.01 to 5 percent by weight based on the dry weight of activated carbon.

Claim 19 (Previously Presented): The method of removing impurities from an aqueous system of claim 17 wherein the activated carbon is derived from one or more selected from the group consisting of bituminous coal; anthracite; lignite; wood; peat; coconut shells; and synthetic polymers.

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Claim 20 (Previously Presented): The method of removing impurities from an aqueous system of claim 17 wherein the carboxylic acid containing compound is selected from hydroxy carboxylic acids and their corresponding salts.

Claim 21 (Previously Presented): The method of removing impurities from an aqueous system of claim 20 wherein the hydroxy carboxylic acids and their corresponding salts are one or more selected from the group consisting of citric acid, ascorbic acid, erythorbic acid, glycolic acid, lactic acid, salicylic acid, hydroxybutyric acid, hydroxyvaleric acid, and their corresponding ammonium, sodium and potassium salts.

Claim 22 (Previously Presented): The method of removing impurities from an aqueous system of claim 17 wherein the carboxylic acid containing compound is one or more carboxylic acid containing compounds selected from the group consisting of sequestering agents, buffers, base neutralizers, antioxidants, and reducing agents.

Claim 23 (Currently Amended): A method of removing impurities from an aqueous system comprising the steps of:

providing a bed of an activated carbon composition ~~comprised~~ consisting ~~essentially~~ of an activated carbon and a carboxylic acid containing compound ~~and optionally~~ ~~water, wherein the carboxylic acid is selected from the group consisting of citric acid, ascorbic acid, erythorbic acid, glycolic acid, lactic acid, salicylic acid, hydroxybutyric acid, and hydroxyvaleric acid, their corresponding ammonium, sodium, and potassium salts, and mixtures thereof;~~ and

passing the aqueous solution through the bed of the activated carbon composition such that there is a flow of an aqueous solution to be purified into the bed and a flow of purified

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aqueous solution from the bed, wherein the pH of the purified aqueous solution deviates less than 1 pH unit from the aqueous solution to be purified.

Claim 24 (Cancelled)

Claim 25 (Previously Presented): The method as claimed in claim 23 wherein the carboxylic acid containing compound is adsorbed onto the surface of the activated carbon and is present in an amount of from 0.01 to 5 percent by weight based on the dry weight of activated carbon.

Claims 26-31 (Cancelled)

Claim 32 (Previously Presented): The method of claim 17, wherein the activated carbon composition is prepared by soaking the activated carbon in a solution containing the carboxylic acid containing compound.

Claim 33 (Previously Presented): The method of claim 17, wherein the carboxylic acid containing compound occupies the high energy adsorption sites of the activated carbon.

Claim 34 (Previously Presented): The method of claim 23, wherein the activated carbon composition is prepared by soaking the activated carbon in a solution containing the carboxylic acid containing compound.

Claim 35 (Previously Presented): The method of claim 23, wherein the carboxylic acid containing compound occupies the high energy adsorption sites of the activated carbon.